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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

COLE, ELIZABETH M

ART UNIT PAPER NUMBER

1771

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,691

Applicant(s)

WIDDEMER, JOHN D.

Examiner

Elizabeth M Cole

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 16, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15, 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al, U.S. Patent No. 6,120,531 in view of Robinson et al, U.S. Patent No. 6,179,879. Zhou et al discloses impregnating a fibrous material with particles from the rare earth elements of the lanthanum and actinium series. See col. 2, lines 59-67 and col. 6, lines 54-57. Zhou et al teaches that incorporating these particles into fibrous materials and then forming the fibrous materials into garments such as gloves, shoes, belts, etc., provides a beneficial effect to persons wearing the garment due to the radiation which is emitted by the particles when stimulated by energy, such as body heat. See col. 2, lines 24-29. Zhou et al differs from the claimed invention because Zhou et al does not teach incorporating the particles into a leather material and does not teach the claimed amount of the functional particles. Further, Zhou et al does not teach incorporating a surface layer comprising a phase change material on the garment. Robinson et al teaches that functional particles which are responsive to body heat can be incorporated into the fibrous matrix of leather. Robinson et al teaches that suitable amounts of such particles are about 3-15 %. See col. 4, lines 29-31. Robinson teaches that a phase change material layer may be included in order to enhance the beneficial effect of the phase change material on the wearer of the garment. See col. 6, lines 62-65.

Robinson et al further discloses the claimed method of making the leather comprising the functional particles. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the functional particles of Zhou et al into the fibrous matrix of a leather substrate as taught by Robinson et al. One of ordinary skill in the art would have been motivated to incorporate the functional particles of Zhou et al into the matrix of Robinson et al in order to obtain the beneficial effects produced by the functional particles of Zhou et al for the wearer of leather garments.

1. Applicant's arguments filed 12/29/03 have been fully considered but they are not persuasive. Applicant argues that Zhou does not disclose erbium or neodymium as recited in claim 2. However, Zhou does disclose titanium. Further, as stated by Applicant, Zhou does teach employing the rare earth elements of the lanthanum and actinium series. Applicant further argues that Zhou teaches contacting the materials with the fabrics as a layer. However, Zhou teaches incorporating the materials into the fabrics in a variety of manners, including coating the materials on to the fibers which make up the fabrics. See col. 2, lines 62-67. Therefore, Zhou does teach incorporating the materials into the fabric itself, not just as surface layer. Applicant also argues that Zhou does not teach the process set forth in claims 14. However, Robinson teaches the method. With regard to claim 15, Robinson teaches impregnating the leather with a phase change material which would also form a coating. With regard to the combination of Zhou and Robinson, Applicant argues that there is no motivation found in the references to treat and place rare earth and/or ceramic having frequency shifting characteristics into the fiber matrix of tanned leather. However, the motivation to make

the combination is found in the teaching of Zhou regarding the beneficial effects of the incorporation of the functional particles of Zhou into the fibers which make up garments. Since Zhou does not discuss leather, Zhou does not disclose the particularly claimed method of incorporating the particles. However, Robinson discloses a leather material wherein functional materials are incorporated into the fiber matrix of the leather. Therefore, it is the examiner's position that one of ordinary skill in the art would have been motivated by the teaching of Zhou regarding the benefits which result from incorporating the particularly claimed materials into the fibers which make up a garment to have incorporated such materials into the fibrous matrix of leather which was to be used as garments. Applicant's arguments regarding the lack of a teaching of a paraffin carrier for the phase change microspheres are well taken. The rejection of those claims is withdrawn.

Claims 16, 18, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment has overcome the 112 1st and 2nd paragraph rejections.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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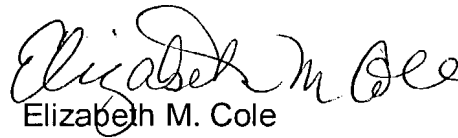
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (703) 872-9306.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c